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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Sung-Su Jung

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MCKENNA LONG & ALDRIDGE LLP
1900 K STREET, NW
WASHINGTON, DC 20006

EXAMINER

LIN, JAMES

ART UNIT

PAPER NUMBER

1792

MAIL DATE

DELIVERY MODE

05/14/2009

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/727,570	Applicant(s) JUNG ET AL.	
	Examiner Jimmy Lin	Art Unit 1792	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 March 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-12 and 16 is/are pending in the application.
- 4a) Of the above claim(s) 1-11 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12 and 16 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 3/25/2009 has been entered.

Claim Objections

2. Claims 12 and 16 are objected to because of the following informalities:

The recitation of "column" (claim 12) should be amended to "columns".

The recitation of "all the syringes are operated in same time" (claim 12) should be amended to "all of the syringes are operated at the same time".

The recitation of "the corresponding a plurality of image display parts" (claim 12) should be amended to "the corresponding plurality of image display parts".

The recitation of "and;" in line 4 of claim 16 should be deleted.

The recitation of "and" should be added to line 8 of claim 16 after "display parts".

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claim 16 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

The claim is indefinite as to how the limitation "wherein the number of the syringes corresponds to the number of lines or [columns] of the image display parts and all the syringes are operated [at the] same time" of claim 12 affects the limitations "moving the syringes in a first group corresponding to a first size of the image display parts" and "moving the syringes in a

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second group corresponding to a second size of the image display parts” of claim 16. For example, it is unclear if the number of syringes corresponding to the number of lines or columns is split up into a first group and a second group, or if the first group and the second group each corresponds to the number of lines or columns. Also, it is unclear whether the first group of syringes would be operated at the same time and the second group of syringes would be operated at the same time, or if both the first group and the second group are together operated at the same time. The claim will be interpreted to be inclusive of at least any of the interpretations previously stated.

5. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

6. Claim 16 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

Although the specification has support for the first group and the second group each corresponding to the number of lines or columns, there is no support for the number of syringes corresponding to the number of lines or columns to be split up into a first group and a second group. Also, there is support for the first group of syringes to be operated at the same time and the second group of syringes to be operated at the same time, but there is no support for both the first group and the second group to be operated together at the same time.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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8. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sotozono (JP 2002-098979) in view of Hirokazu (JP 60-003609, listed in the IDS filed 2/26/2008).

Sotozono discloses a method of making a liquid crystal display. The method comprises of loading a substrate 2 on a table and dispensing sealant 3 onto the substrate using a syringe 4 (abstract; Fig. 2).

Sotozono does not explicitly teach that the substrate has a plurality of image display parts. However, Hirokazu teaches that it was extremely well known in the art of making LCDs to form a plurality of image displays on a single glass substrate (abstract; Fig. 1). The image displays are arranged such that multiple lines and columns are formed on the glass substrate. Because Hirokazu teaches that such a substrate configuration was operable in the art, it would have been obvious to one of ordinary skill in the art at the time of invention to have formed multiple image displays on the substrate of Sotozono with a reasonable expectation of success. The selection of something based on its known suitability for its intended use has been held to support a prima facie case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945).

Sotozono teaches that a single syringe can be used, but does not explicitly teach using a plurality of syringes and that all the syringes are operated at the same time. However, one of ordinary skill in the art would have recognized that the use of multiple syringes would have reduced the time required for dispensing the sealant, with the providing of a syringe for each display being the most efficient. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have provided a plurality of syringes in the process of Sotozono such that one syringe corresponds to each image display part with a reasonable expectation of success. One would have been motivated to do so in order to have improved manufacturing efficiency and decreased costs.

Sotozono does not explicitly teach using a dispenser having a number of syringes corresponding to the number of lines or columns of the image display parts. However, Hirokazu teaches that the glass substrate can have image displays of different sizes. For example, the first line of the first size comprises of six display images while the second line of the second size

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comprises of eight display images (Fig. 2). One of ordinary skill in the art would have recognized that the use of a first set of syringes corresponding to the number of image displays for the first size and a second set of syringes corresponding to the number of image displays for the second size would be able to provide for more precise dispensing because of the different sizes of the display images. Additionally, one of ordinary skill in the art would have recognized that the use of two different sets of syringes to be used for the two different sized display areas would have been operable. Therefore, it would have been obvious to one of ordinary skill in the art at the time of invention to have used a first group of syringes and a second group of syringes corresponding to the first and second image displays of Hirokazu, respectively, with a reasonable expectation of success. One would have been motivated to do so in order to have provided better control and precision of the dispensings. The second group of syringes would correspond to the number of columns of the second image displays.

Claim 16: Hirokazu teaches that the first and the second image display parts are different sizes (Fig. 2).

9. Claims 12 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Ogami (JP 64-73323) in view of Hirokazu '609.

Ogami discloses a method of making a liquid crystal display, the method comprising of loading a substrate 2 on a table 7 and dispensing a sealant onto the substrate using a syringe 13 (abstract; Figs. 2 and 4).

Ogami does not explicitly teach that the substrate has a plurality of image display parts. However, such a modification would have been obvious over Hirokazu for substantially the same reasons as discussed immediately above in paragraph 8.

Ogami teaches that a single syringe can be used, but does not explicitly teach using a plurality of syringes, that the syringes are operated at the same time and that the dispenser has a number of syringes corresponding to the number of lines or columns of the image display parts. However, such modification would have been obvious for substantially the same reasons as discussed immediately above in paragraph 8.

Response to Arguments

10. Applicant's arguments filed 2/25/2009 have been fully considered but they are not persuasive.

Applicant argues on pg. 5 that claim 12 is allowable in that it recites "the number of the syringes corresponds to the number of lines or column of the image display parts and all the syringes are operated in same time so that each syringe dispenses the sealant onto the corresponding a plurality of image display parts to form seal pattern." However, claim 12 would have been obvious over 1) Sotozono and Hirokazu as discussed in paragraph 8 above and 2) Ogami and Hirokazu as discussed in paragraph 9 above.

Applicant argues on pg. 6 that the number of syringes of Yamamoto corresponds to the number of the image display parts while the number of the syringes according to the claimed invention corresponds to the number of lines or columns of the image display parts. It should be noted that the teachings of Yamamoto are no longer being used because of the newly added claim amendments. Nevertheless, one of ordinary skill in the art would have recognized that the use of a first set of syringes corresponding to the number of image displays for the first size and a second set of syringes corresponding to the number of image displays for the second size would be able to provide for more precise dispensing because of the different sizes of the display images. One of ordinary skill in the art would have recognized that the use of two different sets of syringes to be used for the two different sized display areas would have been operable. The use of a second group of syringes would correspond to the number of columns of the second image displays of Hirokazu.

Applicant argues on pg. 7 that the dispenser in Hashimoto and Yamamoto merely dispenses liquid crystal material, not the sealant as claimed. It should be noted that the teachings of Hashimoto and Yamamoto are longer being used and that the teachings of Sotozono and Ogami have been added in order to better clarify the rejection for the amended claims. Both Sotozono and Ogami teach the use of a dispenser that dispenses sealant.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jimmy Lin whose telephone number is (571)272-8902. The examiner can normally be reached on Monday thru Friday 8AM - 5:30PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tim Meeks can be reached on 571-272-1423. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Jimmy Lin/
Examiner, Art Unit 1792

/Timothy H Meeks/
Supervisory Patent Examiner, Art Unit
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